

IN THE CLAIMS

We claim:

1. A structure comprising:
  - a first set of features disposed in the scribeline, said first set of features being a subset of product features; and
  - a second set of features disposed adjacent to said first set of features, said second set occupying a smaller area than said first set, said second set being similar to said first set, said second set being distinguishable from surrounding structures.
2. The structure of claim 1 wherein critical dimension (CD) is measured on said first set of features.
3. The structure of claim 1 wherein said first set of features and said second set of features differ in spaces between features.
4. The structure of claim 1 wherein said first set of features and said second set of features differ in linewidths of features.
5. The structure of claim 1 wherein said first set of features and said second set of features have the same pitch for features.

6. The structure of claim 1 wherein said first set of features comprises a first array of holes.

7. The structure of claim 6 wherein said first array of holes comprises a 5-by-5 square array of holes.

8. The structure of claim 6 wherein said second set of features comprises a second array of holes.

9. The structure of claim 8 wherein said second array of holes differs from said first array of holes in size of array.

10. The structure of claim 8 wherein said second array of holes differs from said first array of holes in space between holes.

11. The structure of claim 8 wherein said second array of holes differs from said first array of holes in linewidths of holes.

12. A method comprising:

extracting a subset from product features to form a first set of features;

extracting a small portion from said first set of features to form a

template;

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transforming said template into a second set of features by  
rotating said template;  
scaling spaces between features in said template;  
scaling linewidths of features in said template;  
merging said first set and said second set of features to form a test  
structure.

13. The method of claim 12 wherein critical dimension (CD) is measured on  
said first set of features.

14. A method comprising:

storing a reference image of a test structure, said reference image  
comprising a first set of features and a second set of features,  
said first set of features being a subset of product features,  
said second set of features disposed adjacent to said first set of  
features, said second set occupying a smaller area than said first set, said second  
set being similar to said first set, said second set being distinguishable from  
surrounding structures;

capturing a test image of a sample, said test image having a plurality  
of portions;

performing pattern recognition of each of said portions relative to said  
reference image;

evaluating similarity of each of said portions to said reference image;

determining a score for each of said portions;

ranking said portions from highest score to lowest score; and

determining location on said sample of said portion with highest score.

15. The method of claim 14 wherein said score depends on said first set of features and said second set of features.

16. The method of claim 14 wherein said first set of features comprises a first array of holes and said second set of features comprises a second array of holes, said second array of holes differing from said first array of holes.

15. The method of claim 14 wherein said score depends on said first set of features and said second set of features.